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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/592,925	08/26/2008	Ulrich Hachmann	1432.135.101/P33804	6064

25281 7590 11/08/2010

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MINNEAPOLIS, MN 55402

EXAMINER

TREAT, WILLIAM M

ART UNIT	PAPER NUMBER
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2181

MAIL DATE	DELIVERY MODE
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11/08/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/592,925	Applicant(s) HACHMANN ET AL.	
	Examiner William M. Treat	Art Unit 2181	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 November 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10,11,13-20 and 22-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10,11,13-20 and 22-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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1. Claims 10-11, 13-20, and 22-29 are presented for examination.
2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 10-11, 13-20, and 22-29 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Houg et al. (Patent No. 6,055,597).
4. The reasons presented in the examiner's previous action, for rejecting original claims 10-29 as being clearly anticipated by Houg, continue and are hereby incorporated by reference.
5. Applicants have argued, in substance, that the incorporation of the language of claim 12 into independent claim 10, the incorporation of the language of claim 21 into independent claim 19, and the incorporation of language similar to that of claims 12 and 21 into independent claim 24, renders them patentable. While the examiner views the language of original claims 12 and 21 to be rather muddled, it is possible to explain the language in clear English and explain why Houg reads on the language as written. Taking the language of claim 12 as an example, the phrase, "only data which is not contained in the data record stored in the first memory region is transmitted", can only mean that the transmission taking place is to the first memory region and not from the first memory region to the second memory region since it is impossible to transmit non-existent data to the second memory region. At col. 14, lines 32-35 of Houg, he states: "each of the processes listed in the FIGS. 5-8 can occur simultaneously". In those

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figures he shows how he can fill first one input block register in the first memory region and then fill a second input block register in the first memory region , etc. while the first input block register could be transmitting to the second memory region. The only limitation the language of claims 12 and 21 place on the data being written to the input block registers is that the data written to the first input block register not be the same as the data written to the second input block register. This is the conventional operation for Houg's buffer. Unless one is talking about an error/fault recovery system, some system for transmission of the same data to multiple destinations, or frequent retransmission of the same data, one of ordinary skill has no real motivation to replicate the data already in the buffer since it wastes system resources. Though applicants may have wished for their claim language to make a different distinction, it only requires the conventional operation of Houg's buffer system.

6. Should applicants seek to refine their claim language in relation to what is being written to the first memory region, they should strive not to read on known error-recovery systems, etc.

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

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were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 13, 15, 17-18, 25, 27 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Houg et al. (Patent No. 6,055,597).

10. In the examiner's judgment the substance of claims 13, 18, and 25 was clearly taught by Houg when the patent is read by one of ordinary skill. However, lest applicants waste their time arguing applicants do not see the exact words of the claim, the examiner takes Official Notice of the fact that graphics, image processing and mathematical coprocessors were conventional components of computer systems at the time of applicants' invention and one of the conventional reasons for a processor to transfer data to a coprocessor at the time of applicants invention was because it was required for execution of a coprocessor instruction.

11. The examiner is notifying applicants that in the absence of a timely traversal of the examiner's Official Notice that "the fact that graphics, image processing and mathematical coprocessors were conventional components of computer systems at the time of applicants' invention and one of the conventional reasons for a processor to transfer data to a coprocessor at the time of applicants invention was because it was required for execution of a coprocessor instruction", it is now admitted prior art.

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12. As to claims 15 and 27, while one could design the transfer of data between the two buffers to be slower than the system bus transferring data to the buffers, that would not be a logical design for one of ordinary skill. Given the fabrication technology available at the time of applicants' invention, one of ordinary skill would have fabricated Houg's device on a single integrated circuit whether incorporated in a larger circuit or created as a standalone chip. The short, on-chip transmission distances and reduced, on-chip capacitances would normally provide bandwidth for the circuit that exceeded the speed at which the system bus could deliver data given that the system-bus multiplexers and internal-bus seem to be of, at least, equal width in Fig. 3. Also, one of ordinary skill would be motivated to move the data from one buffer to the next faster than the data arrived so as not to induce wait states in the device transmitting data. Finally, bus-width, band-width, etc. are merely design parameters that are readily altered based on ones desired design criteria and do not represent patentable differentiation in this instance.

13. As to claims 17 and 29, the examiner explained above that given the fabrication technology available at the time of applicants' invention one of ordinary skill would have been motivated to fabricate Houg's device on a single integrated circuit to reduce transmission capacitance, transmission times, and power consumption.

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

15. Any inquiry concerning this communication should be directed to William M. Treat at telephone number (571) 272-4175.

16. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/William M. Treat/
Primary Examiner, Art Unit 2181